

REMARKS

The above claims and following remarks are submitted in response to the Office Action mailed on December 21, 2007. No claims are amended. Accordingly, claims 1-32 are pending in the application.

I. Claims Rejected Under 35 U.S.C. § 103

Claims 1-32 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,890,011 issued to Abbondanzio et al. (hereinafter "Abbondanzio") in view of U.S. Patent 6,799,208 issued to Sankaranarayan et al. (hereinafter "Sankaranarayan").

Claim 1 recites the elements of "determining a net availability of the resource producer associated with the parent object by traversing the tree of relationships and retrieving consumption information included in each child object of the tree of relationships to calculate the net availability of the resource producer." The Examiner has cited a portion of Abbondanzio that discloses "a bus manager . . . provides a set of services utilized to detect, query, translate, and configure a hardware device that is attached to a bus dynamically." See Abbondanzio, column 3, line 66 to column 4, lines 1-15. In view of this portion of Abbondanzio, the Examiner then stated Abbondanzio's bus manager inherently performs the elements related to "traversing the tree of relationships and retrieving consumption information included in each child object of the tree of relationships to calculate the net availability of the resource producer," as recited in claim 1. In particular, the Examiner proposed (see pages 3, 4, and 6 of the Office Action) that because Abbondanzio discloses a hardware resource manager ("HRM") that stores bus configuration and device information in a hierarchical tree, it is necessary for Abbondanzio's system to retrieve and track consumption information included in each child object of the hierarchical tree to determine whether the resource is available to fulfill a request. To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. See In re Robertson, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). However, as discussed below, Abbondanzio fails to teach or suggest these elements and Abbondanzio does not necessarily require reading and tracking resources from each child object to map child devices to a parent bus.

Abbondanzio specifically relates to a method and system to dynamically translate bus addresses. See Abbondanzio, column 1, lines 22-24. The bus includes a resource such as an address space that can be mapped into a parent bus address space. See Abbondanzio, column 1, lines 63-65. In this manner, each device in the system can be furnished with a conflict free resource (i.e., a mapped address) from the parent bus during runtime. See Abbondanzio, column 2, lines 14-25. To map a device to the parent bus, Abbondanzio discloses that the hardware resource manager ("HRM") uses an interface provided by the bus manager to read resource configuration information of the device *from the parent bus*. See Abbondanzio, column 6, lines 10-15. The Applicant notes that in Fig. 3 of Abbondanzio, the parent bus (e.g., system bus) corresponds with a parent node in the hierarchical tree. Therefore, instead of reading resource configuration information *from each child device* in the hierarchical tree to determine an available address range, the HRM uses an interface provided by the bus manager to read information (i.e., the resource configuration information) *from the parent bus* (i.e., the parent node). In other words, information is directly read from the parent node to determine an available address space. This conclusion is further supported because Abbondanzio repeatedly discloses that the HRM relies upon the interface provided by the bus manager to read resource information from the parent bus (i.e., the parent node). See e.g., Abbondanzio, column 6, lines 19-21, 30-33, and 37-40. Thus, in view of at least these reasons, Abbondanzio fails to teach or suggest the elements of "determining a net availability of the resource producer associated with the parent object by traversing the tree of relationships and *retrieving consumption information included in each child object of the tree of relationships* to calculate the net availability of the resource producer," (emphasis added) as recited in claim 1.

Moreover, Abbondanzio is silent on how the bus manager determines whether an address is available for mapping a device. However, without needing to retrieve consumption information included in each child object in the hierarchical tree as proposed by the Examiner, Abbondanzio's bus manager can map the device to an address using an alternate method. For example, the bus manager can keep a pointer to a location that represents the beginning of available address space in the parent bus and map the device based on this pointer. The bus manager can then update the location of the pointer (e.g., to the ending address of the device) after the device is assigned its address space. In a computer system, devices are commonly mapped into a contiguous address space and this method ensures devices are mapped without conflict as proposed in Abbondanzio. Once all of the address space is assigned, the bus manager

can set the pointer to a null value. In this fashion, reading each child object in the hierarchical tree is not necessarily required to determine available address space in the parent bus. Therefore, for at least these previous reasons, Abbondanzio does not inherently disclose the elements of "determining a net availability of the resource producer associated with the parent object by traversing the tree of relationships and retrieving consumption information included in each child object of the tree of relationships to calculate the net availability of the resource producer," as recited in claim 1. Accordingly, the Applicant respectfully traverses the Examiner's argument based on inherency in Abbondanzio to allegedly teach these elements in claim 1.

In addition, Sankaranarayan fails to cure the deficiencies of Abbondanzio. First, Sankaranarayan discloses that a parent node consumes resources provided in each child node. See Sankaranarayan, column 10, lines 20-27. Therefore, Abbondanzio fails to disclose the elements of "a child object . . . represents a resource consumer of a resource producer associated with the parent object," as recited in claim 1. Moreover, because the parent node is a resource consumer of the child nodes, Sankaranarayan discloses that consumption information is located in the parent node instead of the "consumption information included in each child object," as recited in claim 1. See Sankaranarayan, column 9, lines 35-37 and 39-41. Lastly, in the Response to Arguments section (see second paragraph on page 7 of the Office Action), the Examiner alleged that Sankaranarayan discloses the concept of calculating resource requirements of a child node to determine whether a parent node can provide the required resources. However, the Examiner's assertion is untenable because (as discussed above) Sankaranarayan discloses that the parent node consumes the resources provided in each child node and consumption information is determined by reading the parent node. See Sankaranarayan, column 9, lines 35-37 and 39-41; column 10, lines 20-27. Consequently, for at least these reasons, Sankaranarayan fails to teach or suggest the elements of "a child object of a parent object represents a resource consumer of a resource producer associated with the parent object" and "determining a net availability of the resource producer associated with the parent object by traversing the tree of relationships and retrieving consumption information included in each child object of the tree of relationships to calculate the net availability of the resource producer," as recited in claim 1.

Thus, in view of at least the foregoing reasons, Abbondanzio in view of Sankaranarayan fails to teach or suggest each element of claim 1. Accordingly, reconsideration and withdrawal of the rejection of claim 1 are respectfully requested.

With respect to claims 2-13, each of these claims depends on base claim 1 and incorporates the limitations thereof. Thus, for at least the previous reasons mentioned in connection with claim 1, Abbondanzio in view of Sankaranarayan fails to teach or suggest each element of claims 2-13. Accordingly, reconsideration and withdrawal of the rejection of claims 2-13 are respectfully requested.

In regard to claims 14, 17, and 30, these claims recite analogous limitations to those in claim 1. Thus, for at least the reasons mentioned in connection with claim 1, Abbondanzio in view of Sankaranarayan fails to teach or suggest each element of claims 14, 17, and 30. Accordingly, reconsideration and withdrawal of the rejection of claim 14, 17, and 30 are respectfully requested.

With respect to claims 15, 16, 18-29, 31, and 32, each of these claims depends on base claim 14, 17, or 40. Thus, for at least the reasons mentioned in connection with claims 14, 17, and 40, the Applicant respectfully submits that claims 15, 16, 18-29, 31, and 32 are patentable over Abbondanzio in view of Sankaranarayan. Accordingly, reconsideration and withdrawal of the rejection of claims 15, 16, 18-29, 31, and 32 are respectfully requested.

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CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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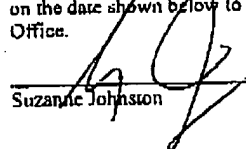

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Suzanne Johnson

3/21/08
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